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VENEREAL DISEASE AMONG COAST GUARD ENLISTED PERSONNEL DURING THE FISCAL YEAR 1929

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VENEREAL DISEASE AMONG COAST GUARD ENLISTED PERSONNEL DURING THE FISCAL YEAR 1929 [1]

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A record of the cases of venereal diseases reported among Coast Guard enlisted personnel has been kept for the third successive year, and this report is submitted primarily for the information of officers of the Public Health Service who treat the cases and of the Coast Guard under whom the patients serve.

The study of these conditions is the result of a conference of officers of the Public Health Service and of the Coast Guard whose purpose was to determine what further action could be taken to reduce the incidence of venereal diseases among Coast Guard personnel. In the discussion of the problem it soon became evident that, while these diseases were prevalent, there was not even approximately accurate knowledge of the actual conditions. Such preventive and remedial measures as were then in effect were based on general impressions and there were no data by which the success or failure of those measures could be judged. The recording of cases and the tabulation of data were undertaken to ascertain existing conditions and to know what changes take place in them.

It must not be understood that this was the first time that this problem had been considered or that measures had been taken for its solution, but it was the first time that it had been put on the basis of knowledge of the conditions and results. At the time of the conference mentioned, the chief measure in effect was the provision of prophylactic packets to units which included them in their medical requisitions. Most of the larger units carried them in stock, but their use was limited. Provision for the use of other prophylactic ointments and injections were available in some units for those who cared to apply for such treatment. In various ways, men were advised of the dangers of venereal disease. It has been impossible to ascertain how extensively these measures were being carried out. Some medical officers and some Coast Guard officers were interested and made more or less of an effort to do so, but it is the impression that there was a general feeling that venereal disease was an inevitable evil against which little could be done, and therefore the interest was not keen.

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At a second conference in 1928, steps were planned to extend a movement already started by Surg. W. C. Rucker, of the United States Public Health Service, at the Marine Hospital, New Orleans, La. Surgeon Rucker had found that talks on subjects of health and prevention of sickness, given in simple language, had been received with great interest by the patients in that hospital. It was believed that all beneficiaries of the Public Health Service would be equally interested, and that much good could be done by such talks.

The extension of this movement was authorized and put in charge of Surg. C. E. Waller. Health talks were to be instituted wherever a sufficient number of beneficiaries of the Public Health Service were grouped, and the larger units of the Coast Guard were therefore included wherever practicable. In the wide range of subjects dealing with health, hygiene, and the prevention of sickness, venereal diseases would naturally occupy a prominent place. There have been much inertia and other difficulties to meet in organizing and instituting these talks, but the work has been done; and venereal diseases and their prevention have been the subject of a number of such talks to Coast Guard men, illustrated at times by moving pictures and lantern slides. Reports indicate that, in general, considerable interest has been shown and that this measure is capable of important development.

It was felt that, in the meantime, the measures already in effect could be carried on more vigorously and more effectively. Efforts have been made to encourage the use of the prophylactic packets and also to put before the men better knowledge of the venereal diseases, their dangers, and reasons for their prevention or avoidance. This has been done by the personal efforts of medical officers and Coast Guard officers, and by the posting of bulletins, by articles in service papers, and by the distribution of literature.

In 1927 the Public Health Service published, for distribution to its beneficiaries, a pamphlet written by Senior Surg. C. H. Lavinder, entitled, "Where Away," setting forth in clear language the essential facts about venereal diseases and their prevention and care. A sufficient number of copies was sent to each Coast Guard unit to supply one copy to each man. A supply is kept at the medical section, Coast Guard headquarters, and additional copies are furnished from time to time upon request. Information is very meager as to the reception given this pamphlet, but there is reason to believe that, in general, it was found to be of interest and value.

It is quite evident that considerable interest has been aroused in this subject, and that in itself is a most valuable step toward the object desired, which is to reduce the incidence of these diseases to the lowest possible point. There is no easy way to accomplish this; and when this point is reached, it can be maintained only by continued interest and unremitting effort.

It is impossible to determine just how much effect may be attributed to each measure employed. Much of the time we may be stumbling more or less blindly, but the value of these efforts as a whole may be judged by the effect as a whole. It does not seem illogical to attribute in large part the improvement in the conditions relative to venereal diseases in the Coast Guard to the measures used to combat them. Undoubtedly other factors have had their effect for and against, but they are very difficult to determine qualitatively and quantitatively.

Record was made of every case reported as gonorrhea, chancroid, or syphilis during the fiscal year. The diagnosis is made by the medical officer treating the case and is not questioned, although effort is made to clear up doubtful and inconsistent reports and to correct errors. There is no means of estimating the number of unreported cases. Opinions as to their number differ; but it is believed that they are not numerous.

In the tables the term "late syphilis" is used, by which is meant any form of syphilis other than primary. The distinction between "primary" and "late" is desirable in the consideration of prevention, because the problems presented by each are different. At first, separate classification of "secondary" and "tertiary" was attempted, but was abandoned when found impracticable, as an identical case often would be reported under each diagnosis, and the distinction in diagnosis would serve little purpose in the problems of prevention. The diagnosis of syphilis was not infrequently qualified as "latent," apparently when no active symptoms were present. In a number of cases, the only evidence of syphilis seemed to be a positive Wassermann found upon physical examination for reenlistment or during hospitalization for another disease. Some of these cases were not reported as treated, but it is probable that most of them were treated then or later.

Comparison of the number of cases and of the rate per 1,000 is made in Tables 1 and 2, including cases continuing from the previous years. When a man was reported as having more than one venereal disease during the year, the case was counted under the head of each disease, hence the number of men affected is somewhat less than the total number of cases. Tables 3 and 4 show the number of cases of mixed and multiple infections.

TABLE 1.—*Number of cases reported*

	1927	1928	1929
Gonorrhea	764	677	645
Chancroid	86	116	65
Primary syphilis	65	54	50
Late syphilis	115	110	118
Total	1,030	957	878

Table 1 shows that there was a reduction of 79 in the actual number of venereal cases reported during 1929, as against a reduction of 73 in the preceding year. In this connection, consideration must be given to the fact that the total number of enlisted personne' has increased each year. The average number of enlisted personnel for 1927, 1928, and 1929, was 9,750, 10,378, and 10,692, respectively, and had the 1928 rate prevailed during 1929 there would have occurred 986 cases instead of 878, or a practical reduction of 108 cases. Between 1927 and 1928 a similar reduction of 139 cases occurred, i. e., had the 1927 rate prevailed in 1928, there would have been 1,096 cases instead of 957.

Taking each year as a unit, Table 1 shows every case of venereal disease, new and old, reported during the year, and thus represents the actual situation, according to all obtainable information, which the Coast Guard and Public Health Service are called upon to meet. Any decrease in the course of a year, irrespective of cause, is an improvement, an increase the reverse.

TABLE 2.—*Rate per 1,000, all cases*

	1927	1928	1929
Gonorrhea	78.36	65.23	60.33
Chancroid	8.82	11.17	6.08
Primary syphilis	6.66	5.20	4.68
Late syphilis	11.80	10.60	11.03
All cases	105.64	92.21	82.12

The rate of occurrence of reported cases, as shown in Table 2, was approximately 82 per 1,000 men of the average enlisted personnel in 1929, as against 92 and 106 for 1928 and 1927, respectively. These rates show clearly the relative improvement in venereal diseases. What relation the rates for venereal diseases bear to the general sick rate or to the rates for other diseases can not be determined because there are no data available from which these rates can be calculated.

The number of new cases in 1929 (Table 3) shows a decrease, with the exception of late syphilis, which increased slightly. This is not surprising, in view of present-day diagnostic facilities by which latent cases are discovered and others of obscure manifestations are found to be syphilitic.

TABLE 3.—*New cases reported*

	1927	1928	1929
Gonorrhea	719	590	565
Chancroid	86	111	60
Primary syphilis	60	50	48
Late syphilis	98	78	86
Total	963	829	759

The marked decrease in the number of cases of chancroid calls for some comment. Comparison of the number occurring in each of the three years shows a marked difference each year; there were in all 86 cases reported in 1927; 111 in 1928; and 60 in 1929. It is evident that data covering several more years must be at hand to determine whether the number for 1928 was exceptionally high and that for 1929 exceptionally low, or whether the incidence of the disease normally fluctuates within a wide range.

TABLE 4.—*Rate per 1,000, new cases*

	1927	1928	1929
Gonorrhea	73.71	56.85	52.84
Chancroid	8.82	10.70	5.61
Primary syphilis	6.15	4.82	4.49
Late syphilis	10.05	7.52	8.04
All new cases	98.77	79.88	70.98

New cases are those reported for the first time during the period of the year. They do not include any case already reported either in the same or previous year. A case of primary syphilis is carried as primary syphilis to the end of the year, although it may pass into the later stage and be treated as secondary syphilis before the end of the year. If the same patient is put under treatment during the following year for secondary syphilis, it is not counted as a new case because it was counted as a new case when in its primary stage.

Table 4 shows the relative changes in the rate of occurrence of new cases; i. e., those which originated, with certain exceptions, while the patient was in the Coast Guard. It is precisely this class of cases which it is especially desired to prevent, and the rates given in this table would therefore be the best criterion by which to judge the results of the preventive measures. The exceptions mentioned are the few cases (noted in Table 15) contracted prior to enlistment and an unknown number of cases of late syphilis contracted prior to enlistment, sometimes years before. It is also true that some cases reported for the first time as late syphilis were contracted after enlistment and were not reported during the primary stage.

The number of cases diagnosed simply as urethritis and ulcer in 1929 was approximately double that for the preceding year; 50 and 13 as against 24 and 7, respectively. Of the urethritis cases, 11 were treated in hospital, and 2 were off duty but not in hospital. Outpatient treatment covered a total period of 530 days, hospital treatment 125 days, and off duty but not in hospital 34 days. Three cases of ulcer were in hospital 75 days and three other cases were in hospital for a concurrent venereal disease. The other 7 patients received 142 days outpatient treatment.

These cases are not included in the data given for venereal disease but require mention because an unknown proportion were undoubtedly undiagnosed cases of gonorrhea, chancroid, or syphilis, and the increase in this class of cases may account for some of the decrease in the number of definitely diagnosed venereal cases. However, even granting that a greater number of cases of gonorrhea, chancroid, and syphilis have fallen into this undefined class in 1929, the number would not be sufficient to account for all the decrease shown in the number of those diseases.

Cases of more than one venereal disease in the same patient may be divided into two classes—those called "mixed infections," in which the patients were under treatment for more than one venereal disease at the same time, and those which may be designated by the term "reinfections," in which the patients were under treatment at different times (Tables 5 and 6).

TABLE 5.—*Mixed infections*

Treated at the same time for—	1927	1928	1929
Gonorrhea and primary syphilis	5	5	4
Gonorrhea and late syphilis	15	21	10
Gonorrhea and chancroid	10	10	3
Gonorrhea, chancroid, and primary syphilis	0	4	1
Gonorrhea, chancroid, and late syphilis	2	0	2
Chancroid and primary syphilis	2	9	2
Chancroid and late syphilis	3	3	8
Total	37	52	30

TABLE 6.—*Reinfections*

Treated at different times for—	1927	1928	1929
Gonorrhea and primary syphilis	3	0	4
Gonorrhea and late syphilis	1	0	3
Gonorrhea and gonorrhea (apparent reinfection)	0	1	5
Gonorrhea and chancroid	3	7	5
Gonorrhea at one time, chancroid and primary syphilis at another time	0	0	1
Gonorrhea at one time, chancroid and late syphilis at another time	1	0	0
Chancroid and chancroid (apparent reinfection)	0	3	0
Chancroid and primary syphilis	0	1	1
Chancroid and late syphilis	1	4	0
Total	9	16	19

As the cases recorded in Tables 5 and 6 were tabulated in the other tables under the heading of each disease and sometimes twice under the same disease, it follows that the number of men affected is less than the number of cases by the number of duplications in tabulation. The number of men affected, after proper deductions, is shown in Table 7.

TABLE 7.—*Number of men affected*

	1927	1928	1929
Men affected	986	884	824
Percentage of average enlisted personnel	10.1	8.5	7.7

A man is not discharged from the Coast Guard because of physical disability due to venereal disease when there is hope of his restoration to duty within a reasonable time and without his being a menace to his shipmates. The number of men discharged in 1927, 1928, and 1929 for physical disability due to venereal disease is shown in Table 8.

TABLE 8.—*Discharges for physical disability due to venereal diseases*

	1927	1928	1929
Gonorrhea	302	39	57
Chancroid	18	1	1
Primary syphilis	27	4	1
Late syphilis	39	15	8
Total	386	59	67

The very great reduction from 1927 to 1928 in the number of men discharged for this cause was the result of a change in policy early in March, 1928. The increase in the number for 1929 over that for 1928 may have been influenced somewhat by the fact that a smaller number of men suffering with venereal disease were discharged on account of undesirability, inaptitude, and other reasons in 1929 than in 1928. There were 41 such discharges in 1928 and 16 in 1929.

The days in hospital have been charged to one disease only, although at times a patient had more than one disease requiring hospital treatment. Hospital days are not included in the case of a venereal patient when the hospitalization was due to a nonvenereal disease.

TABLE 9.—*Hospital days*

	Number of patients			Hospital days			Average number of days per patient		
	1927	1928	1929	1927	1928	1929	1927	1928	1929
Gonorrhea	551	521	[1] 452	13,943	20,437	17,109	24.85	39.23	37.85
Chancroid	57	50	53	1,389	2,371	1,784	24.54	29.64	33.66
Primary syphilis	50	34	[2] 31	1,596	1,319	1,263	31.52	38.79	40.68
Late syphilis	56	56	45	1,568	1,787	1,994	28.54	31.91	44.31
Total	714	691	581	18,506	25,914	22,150	25.92	37.50	38.12

[1] Including 3 patients discharged from the Coast Guard before the beginning of the year but remaining in hospital. These patients are included also in Table 9.
[2] Including 1 patient discharged from Coast Guard before the beginning of the year but remaining in hospital. This patient is included also in Table 9.

The general improvement in the venereal disease situation is reflected in Table 9, although the average period of hospitalization remained about the same in 1929 as in 1928. The shorter average period for 1927 was probably due in part to the greater number of men discharged on account of venereal disease during that year. Those men generally left the hospital after comparatively short periods of hospitalization.

There was actually a greater saving in hospital days than the 3,764 days shown by the table as there was an increase in the average number of men in 1929. The increase in personnel in 1929 was 314, and among this number of men at the 1928 rate, there would have occurred 29 additional cases. About 66 per cent of all cases were hospitalized; hence 19 of these additional cases would have been hospital cases, which at the average number of days in hospital would have made 724 additional hospital days. Therefore, we may consider that the reduction was approximately 4,488 in the number of hospital days.

Table 10 shows the number of days that venereal patients remained in hospital after discharge from the Coast Guard irrespective of the cause of discharge. Some of the patients were discharged during the preceding fiscal year but remained in hospital into 1929.

TABLE 10.—*Cases in hospital after discharge from Coast Guard*

	Patients			Days			Average days per patient		
	1927	1928	1929	1927	1928	1929	1927	1928	1929
Gonorrhea	200	75	72	2,411	493	668	12.05	6.57	9.28
Chancroid	17	2	4	365	27	53	21.47	13.50	13.25
Primary syphilis	19	6	[1] 2	257	77	259	13.53	12.83	129.50
Late syphilis	17	17	12	255	178	145	15.00	10.47	12.08
Total	253	100	90	3,288	775	1,125	13.00	7.75	12.50

[1] See *footnote* (3) *under* Table 13.

Table 11 shows the number of days off duty, but not in hospital, although some of the same men were in hospital for the same disease at other times. The number of days is comparable to that for 1927 and considerably greater than for 1928. The 1928 number may have been abnormally low.

TABLE 11.—*Days off duty but not in hospital*

	1927	1928	1929
Gonorrhea	694	179	749
Chancroid	32	29	42
Primary syphilis	8	0	86
Late syphilis	19	3	32
Total	753	211	909

It is of special interest to the Coast Guard to know the amount of time lost through absence from duty on account of venereal disease. This is shown by Table 12, which includes the data shown by Tables 9 and 11, less those of Table 10. It differs from the number of hospital days shown by Table 9, which includes Table 10, but excludes the data of Table 11.

TABLE 12—*Days off duty while in Coast Guard*

	1927	1928	1929
Gonorrhea	12, 228	20, 123	17, 190
Chancroid	1, 066	2, 373	1, 773
Primary syphilis	1, 317	1, 242	1, 090
Late syphilis	1, 362	1, 628	1, 881
Total	15, 973	25, 366	21, 934

Here again we must take into consideration the 19 hospital cases which would have occurred at the 1928 incidence rate with the increase of personnel, and the 724 days which these patients would have remained in hospital. More or less the same number of days of duty would have been lost to the Coast Guard; they should be considered in addition to the reduction shown in Table 12, making an approximate saving of time to Coast Guard of 4,156 days.

It is of some interest to note the longest periods of hospitalization as shown by Table 13.

TABLE 13.—*Longest period of hospitalization, in days*

	1927	1928	1929		1927	1928	1929
Gonorrhea	[1] 108	[2] 153	[4] 169	Primary syphilis	100	[3] 91	70
Chancroid	86	110	139	Late syphilis	163	114	[5] 258

[1] One other patient, in part of two fiscal years, was 165 days in hospital.
[2] One other patient had been 95 days in hospital on July 1, 1927, and remained 84 more days, a total of 179 days.
[3] One other patient had been 81 days in hospital on July 1, 1928, and remained there 247 days more, a total of 328 days.
[4] Remained in hospital 29 more days in next fiscal year.
[5] Remained in hospital 22 more days in next fiscal year.

The accompanying graph shows by months the admissions and readmissions to off-duty status for the three years. It gives a general idea of the number of men absent from duty all the time on account of venereal disease, making due allowance for the constant fluctuation.

The rates for 1928 and 1929 were appreciably less than the rate for 1927 in spite of the increase of personnel. It must be considered also that had the case incidence remained at the 1927 rate, the number of admissions as well as admission rate would have increased considerably in 1928 and 1929.

It is of interest to know the period of service rendered by men discharged while suffering with venereal disease. Table 14 gives the comparison for the three years. Men suffering with a venereal disease but discharged on expiration of enlistment, are not included.

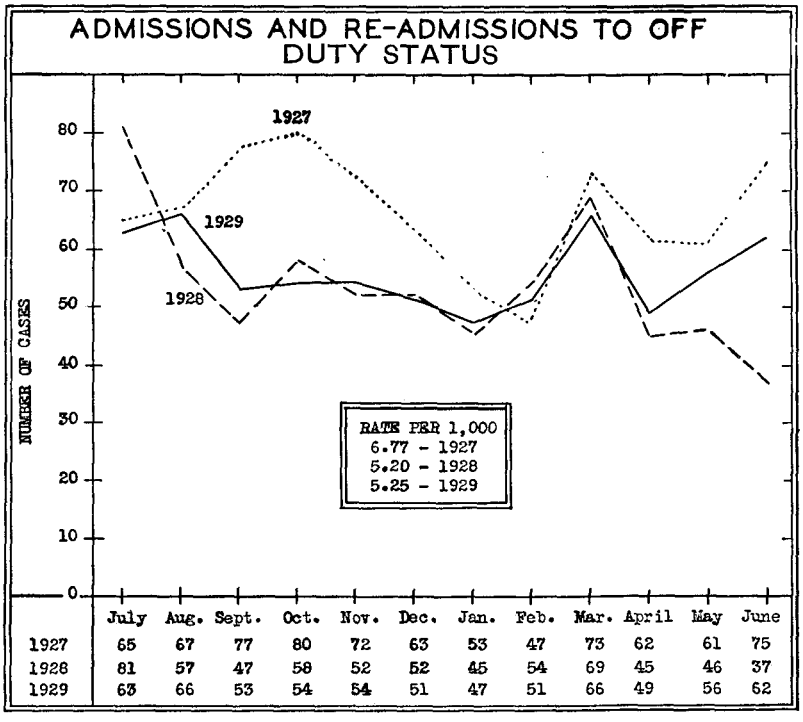

FIGURE 1.—Admissions and readmissions for venereal disease to off-duty status, by months, during the years 1927, 1928, and 1929

TABLE 14.—*Service of discharged men*

	1927	1928	1929		1927	1928	1929
Less than 1 month	38	4	5	From 8 to 9 months	12	7	3
From 1 to 2 months	50	3	3	From 9 to 10 months	11	2	3
From 2 to 3 months	37	7	7	From 10 to 11 months	12	6	4
From 3 to 4 months	27	5	3	From 11 to 12 months	21	2	2
From 4 to 5 months	18	6	2	More than 1 year	115	44	40
From 5 to 6 months	17	8	1				
From 6 to 7 months	15	1	3	Total	386	100	84
From 7 to 8 months	13	5	8				

Table 14 shows close parallelism between 1928 and 1929, but does not show for those years as high a proportion of discharges after very short periods of services as occurred in 1927, in which year there was a relatively high incidence rate among men who had been in the Coast Guard but a short time, as indicated by the large number of men discharged with less than four months' service. It is evident that the practice in effect at that time, of discharging many of these men on account of venereal disease, materially increased the turnover in personnel. Other men were enlisted in their places and some of these may have been discharged in a short time for the same reason. It seems probable that the high rate of discharges, in 1927, of men having only a few months' service may have been influenced by the turnover in personnel.

Table 15 shows a slight reduction in 1929 from 1928 in the number of men who had venereal disease at the time of enlistment, and a much greater reduction from the figures for 1927. Late syphilis is not included, because of the uncertainty, in so many cases, of the time when the disease was contracted. The decrease in 1928 and 1929 is attributed largely to the efforts made to improve the making of physical examinations for enlistment.

TABLE 15.—*Men having venereal disease on enlistment*

	1927	1928	1929
Gonorrhea	35	8	7
Chancroid	1	0	0
Primary syphilis	2	2	0
Total	38	10	7

The data for 1927 showed that a very high percentage of the cases of gonorrhea, chancroid, and primary syphilis (excluding those contracted before enlistment) were reported within a comparatively short time after enlistment, particularly within the first year. The information for 1928 showed that this tendency was less marked and that there was a corresponding increase in the occurrence of cases in men of longer service. This tendency was even less marked in 1929. A comparison of the three years is shown in Table 16, based on the case rate per 1,000, so that variations in the number of men in each period automatically adjust the comparison.

TABLE 16.—*Case rate per 1,000 men in different periods of service*

Men in service—	1927	1928	1929	Men in service—	1927	1928	1929
Less than 1 year	213	155	110	From 2 to 3 years	22	52	67
From 1 to 2 years	79	104	71	More than 3 years	6	19	31

Table 16 shows a very marked reduction in 1929 in the rate for cases in the first period, less so for the second period, and a marked increase for the last two periods. This may be interpreted to indicate that the year's reduction in the actual number of cases took place chiefly among first year men, and that the statistics for the year would have shown a greater reduction had it not been partially offset by an increase among men with more than two years of service. The rates are based upon the number of men in each period about the middle of the fiscal year, as representative of the average number for the year.

It is probable that several factors have operated to cause the shift in rates shown in the table. We can not know and fix the influence of each factor, but we may seek the possible effect of those factors which we know. For the high incidence of cases among recently

enlisted men in 1927, a plausible explanation, at least in part, was found in certain commonly existing factors. The first or second pay day may provide means for the gratification of desires held in abeyance by the lack of financial means, and frequent exposure is likely to follow. Opportunities are not lacking, because a man on shore liberty is assumed to have sufficient money and the opportunity seeks him. Many are young men, often inexperienced and in unfamiliar surroundings. Not "knowing the ropes," they follow the most open paths and find the most accessible opportunities usually the most dangerous.

A great proportion of the turnover in personnel is first enlistments, and among those men an unknown number would be affected by the factors mentioned. It seems possible, therefore, that a large turnover might affect the venereal disease rate, especially among recently enlisted men. The turnover in enlisted personnel in the Coast Guard was 10,021, 6,460, and 6,862 for the fiscal years 1927, 1928, and 1929, respectively, and it seems probable that the smaller turnover in 1928 and 1929 may have had an influence in reducing the number of cases among first-year men.

An additional influence may be credited to the venereal disease control measures which have been mentioned. Certain medical officers have paid special attention to the avoidance and prevention of infection among recruits.

Equally plausible causes for the increased rates for men in service more than two years are not so readily apparent. A certain type of man is likely to contract a venereal disease again and again, profiting little by experience; and the retention of such men in service seems to be a possible factor in the increased rates under discussion. About 12 per cent of the patients whose cases were used for the computations for 1929, had records of a previous venereal infection. Of these, about 1⅓ per cent were in the first period, about 3½ per cent in the second period, and over 7 per cent in the third and fourth periods. The effect of the retention of these men in service was most appreciable in the third and fourth periods, and has had a certain amount of influence in raising the rates for those periods. The retention of these men in service would reduce turnover, but it has caused a certain amount of increase in the rates for the third and fourth periods. This seems at first glance to be paradoxical, in view of the previous credit given to less turnover for reduction in the rate for the first period; but the tendency of the less turnover to increase the rate is much less marked than is its tendency to decrease it; and, furthermore, the increase is manifested in the later periods, because there was usually an interval of more than one year, often several years, between attacks, during which time the man had passed from the first period to a longer one.

Another factor may be mentioned: There are indications that there is now less concealment of cases, particularly among men of longer service, as the interest aroused in venereal diseases has the effect of bringing cases to treatment. No doubt there are other factors at work, but their causative relation is too obscure to be worth discussion at present.

Recognizing that the danger of venereal infection is serious in any large port, it is of considerable interest to know, if possible, those ports in which the danger is particularly great. For this reason an attempt has been made to estimate and tabulate the incidence rates for a number of ports at or near which an appreciable number of Coast Guard men are stationed.

The lack of definite data as to the place where infection was acquired and the frequent variations in personnel at a given place necessitate a considerable assumption on this point. It must also be remembered that the numbers with which we are dealing are relatively small, so that a slight difference of a very few cases may make a relatively large difference in the rate. However, with these limitations, Table 17 has some value. It is based on 555 new cases of gonorrhea, chancroid, and primary syphilis in which the place of infection may be assumed with fair probability among approximately 7,500 men.

TABLE 17.—*Incidence rates per 1,000 at ports*

	1927	1928	1929		1927	1928	1929
New London	74	40	30	Galveston	271	233	66
New York	108	93	68	Portland, Me	291	65	123
Boston	113	73	94	St. Petersburg	(1)	38	97
Norfolk	142	103	73	Fort Lauderdale	(1)	54	28
San Francisco and Oakland	86	60	122	Wood's Hole	(1)	46	34
Baltimore	193	223	111	Charleston, S. C	(1)	183	244
Seattle	83	140	181	Cape May	(1)	28	17
Biloxi	54	61	33	Pascagoula	(1)	(1)	88
San Pedro	100	33	129	Savannah	(1)	(1)	97
Key West	130	115	117	Fernandina	(1)	(1)	65
Wilmington, N. C	136	173	111	Juneau	(1)	(1)	92
Mobile	288	200	189				

[1] Not given.

New cases reported have been tabulated on the basis of the unit to which the patient was attached when infection apparently occurred. The resulting rates of incidence for each unit in different years and for different units under comparable circumstances, varied so greatly that as yet they are not of sufficient value to cite. Evidently those rates are influenced by many factors which are obscure and require further study.

As the grouping of men by ratings may indicate in a general way some differences in types of men, their habits, environments, etc., which may have a bearing upon the occurrence of venereal disease, the incidence rate by ratings has been tabulated in Table 18. The rate is per 1,000 men, based upon the average strength of each rating for the year. Cases of all kinds are included.

TABLE 18.—*Rates per 1,000, by ratings*

	1927	1928	1929		1927	1928	1929
Boatswain's mate	29	38	23	Water tender	97	101	70
Coxwain	191	126	100	Engineman	77	102	107
Gunner's mate	78	97	68	Fireman	265	171	162
Quartermaster	86	60	72	Yeoman	66	45	50
Seamen	175	175	154	Storekeeper	86	60	53
Surfman	19	26	30	Pharmacist's mate	28	0	38
Electrician's mate	205	33	29	Commissary steward	75	77	39
Radioman	85	89	44	Ship's cook	108	108	123
Carpenter's mate	81	61	70	Officer's steward	98	85	70
Machinist's mate	60	57	48	Mess attendant	326	235	239
Motor machinist's mate	62	52	44				

It is a cause for considerable satisfaction that the improvement in the conditions noted in the figures for 1928 continued during the fiscal year ended June 30, 1929. It seems justifiable to attribute this in large measure to increased interest in the subject, better appreciation of its importance, and greater effort to avoid or prevent infection. It is to be hoped that the improvement will continue until the irreducible minimum is reached. There is no reason to believe that the present conditions are the best attainable.

SUMMARY AND COMMENT

In this review of the existing conditions, three outstanding facts should receive attention: The reduction in the actual number of cases, and in the incidence rate, notwithstanding an increase in the number of personnel; the reduction in the number of hospital days for 1929; and the reduction of the amount of time lost to the Coast Guard.

The figures for 1928 showed a reduction of 73 in the actual number of cases from 1927, and the figures for 1929 showed a further reduction of 79 cases. In each year there was an increase in the number of enlisted men, and had the 1927 incidence rate continued in 1928 and 1929, there would have occurred 139 more cases in 1928 and 251 more cases in 1929, instead of the decrease which actually occurred. The incidence rate per thousand fell from 105.64 for 1927 to 92.21 for 1928 and to 82.12 for 1929. Considering only new cases reported, their number was 136 less for 1928 and 70 less for 1929 than for 1927; and the incidence rate fell from 98.77 for 1927 to 79.88 for 1928 and 70.98 for 1929.

The number of days in hospital and of time lost to the Coast Guard rose sharply in 1928, and the average stay in hospital was notably longer. Sufficient explanation of this is not readily apparent, but the retention of many men in service in 1928 instead of discharging them, as in 1927, had considerable effect in producing the result, because the discharged men remained a comparatively shorter time

in hospital after discharge than did the men retained in service; and, of course, when a man was discharged his loss of time ceased to be charged to Coast Guard time.

The figures for 1927 may have been normal for conditions which prevailed during the greater part of that year, whereas under the changed conditions prevailing during 1928 and 1929 the figures for those years seem more nearly comparable. The average stay in hospital changed but slightly, but there was an actual saving of 4,488 hospital days—an appreciable economy.

The time lost to the Coast Guard may be considered from the same point of view. For 1929 there were actually 3,432 less days lost than for 1928, to which should be added the number of cases which would have occurred had the 1928 rate obtained with the increase in personnel. It would be approximately the same as the corresponding saving in hospital time, i. e., 724 days, making a total saving of time to the Coast Guard of 4,156 days. This represents an appreciable saving in efficiency, a point which should appeal strongly to the Coast Guard officer who is hampered in the performance of his duty by the absence of any member of the unit's complement, and also to the enlisted man who is called upon to do extra duty because of the absence of his shipmate.

It has been frequently said to me that the Coast Guard loses nothing financially when a man is off duty on account of venereal disease. This would be economy at the expense of efficiency, which has not been advocated even in the most insistent appeals for economy. Moreover, the suggestion that the Coast Guard suffers no financial loss in these cases is only partially true, because certain men continue to receive pay, others receive a small allowance, travel expense is incurred, and in the case of a discharged man there is mileage to be paid and the expense of enlisting another man in his place.

It is not believed that the present conditions regarding venereal diseases in the Coast Guard are the best attainable. On the contrary, it is considered that the application of preventive measures can be improved and extended with still further beneficial results. It is not to be expected that these diseases can be entirely eliminated; and as the number of cases is reduced, it will become increasingly difficult to reduce them further.

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